

YAJUAN SI

Contact Rm 4014, ISR *Phone:* 734-7646935 (Office)

Information 426 Thompson St *E-mail:* yajuan@umich.edu
Ann Arbor, MI 48104 *Website:* <http://www-personal.umich.edu/~yajuan>

Education **Duke University, Department of Statistical Science**, Durham, North Carolina, USA
Ph.D., Statistical Science, 2012 ; **M.S.**, Statistical Science 2010
Advisor: Jerome P Reiter
Thesis: Nonparametric Bayesian Methods for Multiple Imputation of Large Scale Incomplete Categorical Data in Panel Studies

Renmin University of China, School of Statistics, Beijing, P.R.China
B.S., Statistics & Actuarial Science, 2008

The University of Hong Kong, Department of Statistics & Actuarial Science, Hong Kong
Exchange Student, Statistics & Actuarial Science, 2007

Professional Experience **University of Michigan**, Ann Arbor, MI
Research Associate Professor (with tenure) *Sept 2022 - present*
Survey Methodology Program, Survey Research Center, Institute for Social Research & Department of Biostatistics, School of Public Health
Research Assistant Professor *Sept 2017 - Aug 2022*
Member, Institute for Healthcare Policy & Innovation *Jan 2018 - present*
Affiliate, Population Dynamics and Health Program *May 2019 - present*
Faculty Associate, Population Studies Center *May 2019 - present*
Affiliate, Michigan Center on the Demography of Aging *May 2019 - present*
Affiliate, Michigan Institute for Data Science *Nov 2019 - present*

University of Maryland, College Park, MD
Teaching faculty, Joint Program in Survey Methodology *Sept 2019 - present*

National Institute of Statistical Sciences
Research Fellow *Feb 2020 - present*

University of Wisconsin-Madison, Madison, WI
Visiting Assistant Professor, Department of Population Health Sciences *Sept 2017 - Sept 2022*
Assistant Professor (tenure track), Department of Biostatistics & Medical Informatics and Department of Population Health Sciences *Aug 2014 - Aug 2017*
Affiliate, University of Wisconsin Survey Center *Feb 2015 - Aug 2017*
Affiliate, Center for Demography and Ecology *Oct 2015 - Aug 2017*
Affiliate, Department of Statistics *Nov 2015 - Aug 2017*

Columbia University, New York, NY

Postdoctoral Research Scholar (*Supervisor: Andrew Gelman*)

Aug 2012 - Jul 2014

Educational Testing Service, Princeton, NJ

Summer Intern (*Mentors: Matthias Von Davier and Xueli Xu*)

Jun 2010 - Aug 2010

Duke University, Durham, NC

Research Assistant, Department of Statistical Science

Jan 2009 - July 2012

Awards

- Population Dynamics and Health Program's New Investigator Intensive Mentoring Program, University of Michigan, 2018
- Performance Bonus Fund, University of Wisconsin-Madison, 2017
- Women in Statistics and Data Science Conference-Travel Award, 2016
- The Institute of Mathematical Statistics (IMS) Junior Researcher Conference-Travel Award, 2015
- The annual meeting of the International Biometric Society-Eastern North American Region (ENAR) Junior Investigator Workshop-Travel Award, 2015
- Frontiers of Hierarchical Modeling in Observational Studies, Complex Surveys and Big Data-Travel Award funded by NSF, 2014
- OBayes 2013 Meetings: Celebrating 250 Years of Bayes-Travel Award, 2013
- International Workshop on Objective Bayes Methodology-Travel Award, 2011

Funded Grants Principal Investigator (External Funding)

1. NIH/NIMHD U01MD017867 04/01/2022–12/31/2025 3.00 Calendar
Total Award Amount: \$2,305,764
Statistical Adjustments of Sample Representation in Community-level Estimates of COVID-19 Transmission and Immunity
2. NIH/SBCECC 03/01/2022–02/28/2023 0.61 Calendar
Total Award Amount: \$15,000
Examination of Health Disparity and its Social Determinants for Vulnerable Populations of COVID Transmission
3. NIH/NIDA U24DA055325 10/01/2021–09/30/2026 1.20 Calendar
Total Award Amount: \$143,731
The Healthy Brain and Child Development National Consortium Administrative Core
UM Subcontract (PI: Chambers at University of California, San Diego)
4. NIH/NICHHD R21HD105204 05/01/2021–04/30/2023 2.40 Calendar
Total Award Amount: \$400,166
Novel Approaches to Adjusting for Population Heterogeneity and Representation in Neuroimaging Studies
5. NISS/NCES 01/01/2020–09/30/2022 2.40 Calendar
Total Award Amount: \$298,450

Nonresponse Bias Adjustment for Large-scale Education Surveys

6. USDA 10/01/2018–09/30/2023 0.36 Calendar

Total Award Amount: \$74,950

Methodological Research on Mobile Technology in the Collection of Household Food Expenditure Data

7. University of Wisconsin Survey Center 09/01/2018-08/31/2020 1.20 Calendar

Total Award Amount: \$34,904

Academic Support Services Agreement: MIDUS Early Warning Project (U19 funded by NIA)

8. NIH/NIDDK R21DK110688 08/01/2016–07/31/2019 2.40 Calendar

Total Award Amount: \$227,775

Profiling Missing Data in Electronic Health Records for Diabetes Care Research

9. NIH/NIDDK R01DK108073 04/01/2016–03/31/2021 0.96 Calendar

Total Award Amount: \$16,969

Statistical Methods for Healthcare in Complex Patients with Diabetes

UM Subcontract (PI: Zhao at Fred Hutchinson Cancer Research Center)

10. NSF/MMS SES 1760133 10/01/2015–09/30/2020 1.92 Calendar

Total Award Amount: \$197,949

Multilevel Regression and Poststratification: A Unified Framework for Survey Weighted Inference

Principal Investigator (Internal Funding)

11. NIH/NIA/MiCDA 07/01/2020–06/30/2025 1.20 Calendar

Total Award Amount: \$3,773,851 (to MiCDA)

Confidentiality Protection after Record Linkage: Laying the Groundwork for Synthetic Record Linkage

12. UM/MIDAS 05/15/2020–12/31/2020 1.34 Calendar

Total Award Amount: \$29,968

Estimating County-level Age Group Contact Rates from Time Use Data

13. UM/MIDAS 01/01/2020–12/31/2021 0.87 Calendar

Total Award Amount: \$90,000

Regularized Regression and Poststratification: Blending Data Science and Survey Methodology to Increase the Reproducibility of Population Genetics Research

14. UM/PSC 05/01/2018-05/01/2019 1.00 Calendar

Population Dynamics and Health Program's New Investigator Intensive Mentoring Program

Co-Investigator (External Funding)

15. NIH/NIA R01	01/01/2022–05/31/2024	0.96 Calendar
Total Award Amount: \$1,579,916		
Assessing the Interactive Effect of Lifetime and Old Age Cognitive Engagement on Cognitive Decline and Dementia: Cognitive Reserve versus Use it or Lose it (PIs: Helppie-McFall and Langa)		
16. NSF BCS 2023639	10/01/2020–09/30/2025	0.60 Calendar
Total Award Amount: \$1,499,636		
HNDS-I: Decennial Census Linkage Project (PI: Alexander)		
17. NIH/NIDDK R01 DK121709-02	04/01/2020–03/31/2025	0.60 Calendar
Total Award Amount: \$3,809,089		
Real-world Effectiveness of Preventive Pharmacological Therapy for Patients with Kidney Stones (PI: Hollingsworth)		
18. NIH/NIDA R01 DA031160-08	04/01/2019-03/31/2022	0.60 calendar
Total Award Amount: \$1,076,400		
Trajectories of Nonmedical Prescription Drug Misuse (PI: McCabe)		
19. AHRQ R01 HS024728-03	02/01/2019–04/30/2021	1.20 Calendar
Total Award Amount: \$1,557,555		
Will the Reach of ACOs Extend to Speciality Care (PI: Hollingsworth)		
20. AHRQ R01 HS024525-03	01/01/2019–09/30/2021	1.20 Calendar
Total Award Amount: \$1,716,932		
Assessing the Effects of Accountable Care Organizations Surgical Spending and Quality (PI: Hollingsworth)		
21. PCORI CE-1304-6543	09/01/2014–02/28/2017	1.20 Calendar
Post-Treatment Surveillance in Breast Cancer: Bringing CER to the Alliance (PI: Greenberg)		

Co-Investigator (Internal Funding)

22. UW Health	07/01/2015–08/31/2017	0.96 Calendar
Accountable Care Organization Reporting Project (PI: Smith)		
23. University of Wisconsin Survey Center	02/20/2015–08/31/2017	1.20 Calendar
Sampling Design and Survey Data Analysis		

Pending Grants Principal Investigator

1. NSF	08/01/2022–07/31/2025	0.83 Calendar
Enhancing Synthetic Data Techniques for Practical Applications		
UM Co-PI (PI: Reiter at Duke University)		
(Recommended by NSF/MMS for funding)		

Co-Investigator

2. NIH/NIEHS R01 08/01/2022–07/31/2027 1.00 Calendar
Environmental Toxicants, Epigenetics and Psychopathology: Birth to Adulthood
3. NIH/NHLBI R01 04/01/2022–03/31/2027 1.20 Calendar
Pathways from Structural Racism and Discrimination to Population Developmental Health: A Longitudinal Study of the Adolescent to Early Adult Transition
4. NIH U01 12/01/2021–11/30/2023 0.48 Calendar
Trusted Allied Messengers Against Illness (TAMAI): Community-Engaged Research to Address COVID-19 Disparities Among Vulnerable Pacific Islander Populations
5. NIH/NIMH R01 09/01/2021–08/31/2026 1.20 Calendar
Neural, Neurodevelopmental, and Behavioral Mechanisms of Psychopathology in the Transition from Adolescence to Early Adulthood: A Longitudinal Investigation
6. NIH/NHLBI R01 09/01/2021–08/31/2026 1.20 Calendar
Emergent Behavioral and Physiological Cardiovascular Health Risk Factors in the Transition from Adolescence to Adulthood: A Longitudinal Investigation
7. NSF 06/01/2021–06/30/2024 0.60 Calendar
HNDS-I: Multi-Network Dynamics of Science (MiNDS)
8. NIH/NIEHS R01 04/01/2021–03/31/2024 1.20 Calendar
Environmental Exposures, Developmental Psychopathology, and Mediating Mechanisms: A Longitudinal Investigation
9. NIH/NIDA R01 04/01/2021–03/31/2024 1.20 Calendar
Trajectories of Substance Use, Substance Disorder, and Psychopathology in Adolescence and Emerging Adulthood: Developmental Patterns and Processes

Publications

Peer Reviewed Articles: * Corresponding author; ‡ Student advised by Si

1. J Schumacher, H Neuman, M Yu, D Vanness, **Y Si**, E Burnside, K Ruddy, A Partridge, D Schrag, S Edge, Y Zhang, E Jacobs, J Havlena, A Francescatti, D Winchester, D McKellar, P Spears, D Kozower, G Chang, and C Greenberg. Surveillance Imaging vs Symptomatic Recurrence Detection and Survival in Stage II-III Breast Cancer, *Journal of the National Cancer Institute (forthcoming)*
2. **Y Si***, B West, P Veliz, M Patrick, J Schulenberg, D Kloska, Y Terry-McElrath, and S McCabe (2022). An Empirical Evaluation of Alternative Approaches to Adjusting for Attrition When Analyzing Longitudinal Survey Data on Young Adults' Substance Use Trajectories, *International Journal of Methods in Psychiatric Research*, doi
3. **Y Si***, L Covello, S Wang, T Covello, and A Gelman (2022). Beyond Vaccination Rates: A Synthetic Random Proxy Metric of Total SARS-CoV-2 Immunity Seroprevalence in the Community, *Epidemiology*, 33(4), 457–464, doi

4. S Bakre, N Moloci, E Norton, V Lewis, **Y Si**, S Lin, E Lawton, L Herrel, and J Hollingsworth (2022). Association Between Organizational Quality and Out-of-Network Primary Care Among Accountable Care Organizations That Care for High vs Low Proportions of Patients of Racial and Ethnic Minority Groups, *JAMA Health Forum*, 3(4):e220575, doi
5. **Y Si***, N Moloci, S Murali, S Krein, A Ryan, and J Hollingsworth (2022). Use of Preventive Care Services and Hospitalization among Medicare Beneficiaries in Accountable Care Organizations that Exited the Shared Savings Program, *JAMA Health Forum*, 3(1):e214452, doi
6. **Y Si***, S Heeringa, D Johnson, R Little, W Liu, F Pfeffer, and T Raghunathan (2021). Multiple Imputation with Massive Data: An Application to the Panel Study of Income Dynamics, *Journal of Survey Statistics and Methodology* (available online), link
7. K Constante, E Huntley, **Y Si**, C Wagner, E Schillinger, and D Keating (2021). Conceptualizing Protective Family Context and Its Effect on Substance Use: Comparisons across Diverse Ethnic-Racial Youth, *Substance Abuse*, 42(4), 796–805, doi
8. J Song, B Radler, M Lachman, M Marlick, **Y Si**, and C Ryff (2021). Who Returns? Understanding Varieties of Longitudinal Participation in MIDUS, *Journal of Aging and Health*, 33(10), 896–907, doi
9. L Covello, A Gelman, **Y Si***, and S Wang (2021). Routine Hospital-Based SARS-CoV-2 Testing Outperforms State-Based Data in Predicting Clinical Burden, *Epidemiology*, 32(6), 792–799, doi
10. **Y Si*** and P Zhou[#] (2021). Bayes-raking: Bayesian Finite Population Inference with Known Margins, *Journal of Survey Statistics and Methodology*, 9(4), 833–855, doi
11. R Hsi, P Yan, D Goldfarb, A Egbuji, **Y Si**, V Shahinian, and J Hollingsworth (2021). Comparison of Selective Versus Empiric Pharmacologic Preventative Therapy with Kidney Stone Recurrence, *Urology* 149, 81–88, doi
12. N Moloci, **Y Si**, E Norton, A Ryan, and J Hollingsworth (2021). Predicting Losses from Medicare Shared Savings Program Departures, *Journal of General Internal Medicine*, 36, 2490–2491, doi
13. **Y Si***, M Palta, and M Smith (2020). Bayesian Profiling Multiple Imputation for Missing Hemoglobin Values in Electronic Health Records, *Annals of Applied Statistics* 14(4), 1903–1924, doi
14. **Y Si***, R Trangucci, J Gabry, and A Gelman (2020). Bayesian Hierarchical Weighting Adjustment and Survey Inference, *Survey Methodology*, 46(2), 181–214, doi
15. **Y Si*** (2020). Model-based Inferences, In P. Atkinson, S. Delamont, A. Cernat, J.W. Sakshaug, and R.A. Williams (Eds.). *SAGE Research Methods Foundations*, doi
16. J Wang[#], Y Jin, and **Y Si** (2018). Statistical Inference of Non-probability based Web Surveys, *Statistics and Decision*, 18, 10–14
17. S Makela[#], **Y Si***, and A Gelman (2018). Bayesian Inference under Cluster Sampling with Probability Proportional to Size, *Statistics in Medicine*, 37(26), 3849–3868, doi

18. J Schumacher, H Neuman, G Chang, B Kozower, E Stephen, Y Meng, D Vanness, **Y Si**, E Jacobs, A Francescatti, P Spears, J Havlena, T Ades oye, D McKellar, D Winchester, and C Greenberg (2018). A National Study of the Use of Asymptomatic Systemic Imaging for Surveillance Following Breast Cancer Treatment, *Annals of Surgical Oncology*, 25(9), 2587–2595, doi
19. E DuGoff, J Cho, **Y Si**, and C Pollack (2018). Geographic Variations in Physician Relationships Over Time: Implications for Care Coordination, *Medical Care Research & Review*, 75(5) 586–611, doi
20. J Schumacher, H Neuman, Y Zhang, Y Meng, D Vanness, **Y Si**, E Burnside, K Ruddy, A Partridge, D Schrag, S Edge, E Jacobs, J Havlena, A Francescatti, D Winchester, D McKellar, P Spears, B Kozower, G Chang, and C Greenberg (2017). Asymptomatic Distant Recurrence Detection and Survival in Early Stage Breast Cancer: A Nationally Representative Study, *Journal of Clinical Oncology*, 35 (15) 6520–6520, doi
21. H Neuman, J Schumacher, A Francescatti, T Adesoye, S Edge, E Burnside, D Vanness, M Yu, **Y Si**, D McKellar, D Winchester, and C Greenberg (2016). Utility of Clinical Breast Exams in Detecting Local-Regional Recurrence After Breast-Conservation in Women with a Personal History of High-risk Breast Cancer, *Annals of Surgical Oncology*, 23(10), 3385–3391, doi
22. **Y Si***, J Reiter, and S Hillygus (2016). Bayesian Latent Pattern Mixture Models in Panel Studies with Refreshment Samples, *The Annals of Applied Statistics*, 10(1), 118–143, doi
23. D Early, J Berg, S Alicea, **Y Si**, J Aber, R Ryan, and E Deci (2016). The Impact of Every Classroom, Every Day on Student Achievement: Results from a School-randomized Efficacy Trial, *Journal of Research on Educational Effectiveness*, 9(1), 3–29, doi
24. **Y Si***, N Pillai, and A Gelman (2015). Bayesian Nonparametric Weighted Sampling Inference, *Bayesian Analysis*, 10(3), 605–625, doi
25. **Y Si***, J Reiter, and S Hillygus (2015). Semi-parametric Selection Models for Potentially Non-ignorable Attrition in Panel Studies with Refreshment Samples, *Political Analysis*, 23, 92–112, doi
26. S Makela[‡], **Y Si**, and A Gelman (2014). Statistical Graphics for Survey Weights, *Journal of Revista Columbiana De Estadística*, 37, 285–295, doi
27. **Y Si** and J Reiter (2013). Nonparametric Bayesian Multiple Imputation for Incomplete Categorical Variables in Large-scale Assessment Surveys, *Journal of Educational and Behavioral Statistics*, 38, 499–521, doi
28. Y Deng, S Hillygus, J Reiter, **Y Si**, and S Zheng (2013). Handling Attrition in Longitudinal Studies: The Case for Refreshment Samples, *Statistical Science*, 22, 238–256, doi
29. **Y Si** and J Reiter (2011). A Comparison of Posterior Simulation and Inference by Combining Rules for Multiple Imputation, *Journal of Statistical Theory and Practice*, 5(2), 335–347, doi

Book Chapters

30. S Makela[‡], **Y Si**, and A Gelman (2018). Graphical Visualization of Polling Results, in *Oxford Handbook on Polling and Polling Methods*, edited by Lonna Atkeson and Michael Alvarez, doi

Other Publications (Technical Reports, Conference Proceedings, and Media Articles)

31. **Y Si**, R Little, and Y Mo (2021). Nonresponse Bias Analysis in Longitudinal Studies: A Case Study with the ECLS-K 2011 Study, *National Institute of Statistical Sciences and National Center for Education Statistics*

32. **Y Si** (2021). Statistical Adjustments of Sample Representation in Community-Level Prevalence Estimates of COVID-19 Transmission and Immunity, contribution to a special article, Surveys, Dashboards, and Innovations in Response to COVID-19, by D Liao, *AMSTAT News*, link

33. **Y Si**, R Little, and Y Mo (2021). Nonresponse Bias Analysis in Cross-sectional Studies: A Case Study with the ECLS-K 2011 Study, *National Institute of Statistical Sciences and National Center for Education Statistics*

34. L Covello, A Gelman, and **Y Si** (2021). We Still Don't Know How Many People Are Infected with Covid. We Can Find Out, *The Washington Post*, link

35. L Kennedy, G Basse, A Gelman, G Imbens, **Y Si**, D Rothenhausler, and J Spiess (2020). Lessons Learned and Remaining Challenges for Online Seminars and Conferences, *Amstat News*, link

36. **Y Si** and A Gelman (2014). Survey Weighting for the New York City Longitudinal Survey on Poverty Measure, *New York City Longitudinal Study of Poverty*

37. **Y Si** and A Gelman (2014). Methodology for Constructing Primary Caregiver Weights for Wave 3-5 in the Fragile Families and Child Wellbeing Study, *Fragile Families and Child Wellbeing Study*, link

38. **Y Si** and A Gelman (2014). Methodology for Constructing Mother, Father and Couple Weights for Core Telephone Survey Wave 5, *Fragile Families and Child Wellbeing Study*, link

39. **Y Si** and A Gelman (2014). Methodology for Constructing Child Weights for Wave 3-5 in the Fragile Families and Child Wellbeing Study, *Fragile Families and Child Wellbeing Study*, link

40. C Wimer, I Garfinkel, M Gelblum, N Lasala, **Y Si**, J Teitler, and J Waldfoegel (2013). The New York City Poverty and Disadvantage Tracker, *Robin Hood Foundation*, link

41. E Deci, D Early, J Aber, R Ryan, J Berg, S Alicea, and **Y Si** (2013). Report: Validation of the Engagement, Alignment, and Rigor (EAR) Classroom Visit Protocol & Every Classroom, Every Day Efficacy Trial, *U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance*, link

42. **Y Si** and J Reiter (2010). A New Approach to Protect Confidentiality for Census Microdata with Missing Values, *In JSM Proceedings, Survey Research Methods Section*. Alexandria, VA: American Statistical Association, link

Journal Submissions Under Peer Review

43. **Y Si***, R Little, Y Mo, and N Sedransk (2022). A Case Study of Nonresponse Bias Analysis in Educational Assessment Surveys, Journal of Educational and Behavioral Statistics (2nd revision requested), link
44. Z Lin[#], **Y Si***, and J Kang (2022). Latent Subgroup Identification in Image-on-scalar Regression, Annals of Applied Statistics
45. **Y Si*** (2022). On the Use of Auxiliary Variables in Multilevel Regression and Poststratification, Statistical Science (2nd revision requested), link
46. K Li[#], and **Y Si*** (2022). Embedded Multilevel Regression and Poststratification: Model-based Inference with Incomplete Auxiliary Information, Statistics in Medicine, link
47. **Y Si***, R Little, Y Mo, and N Sedransk (2022). Nonresponse Bias Analysis in Longitudinal Educational Assessment Studies, Journal of Educational and Behavioral Statistics, link

Software Development

A Gelman, J Hill, Y Su, M Yajima, M Pittau, B Goodrich, **Y Si**, and J Kropko (2015). R package “mi” for missing data imputation, link

Presentations

Invited

1. Joint Statistical Meetings (JSM), DC, Aug. 2022 (expected)
2. The International Conference on Econometrics and Statistics (EcoSta 2022, online), Jun. 2022
3. The Statistical Society of Canada 2022 Meeting (online), Jun. 2022
4. The Conference on Small Area Estimation, College Park, MD, May. 2022
5. Forum on Coordinated Sample Design for Multiple Surveys (online), May. 2022
6. Multilevel Regression and Poststratification Working Group (online), Oct. 2021
7. The International Chinese Statistical Association (ICSA) Applied Statistics Symposium (online), Sept. 2021
8. Joint Statistical Meetings (online), Aug. 2021
9. The Statistical Society of Canada 2021 Meeting (online), Jun. 2021
10. The International Indian Statistical Association Conference (online) May. 2021
11. Michigan Center on the Demography of Aging (MiCDA) Symposium (online), University of Michigan, MI, May. 2021
12. Primary Research Staff (PRS) Seminar (online), Survey Research Center, University of Michigan, MI, Jan. 2021
13. Department of Preventive Medicine (online), Northwestern University, Chicago, IL, Jan. 2021
14. The ICSA Applied Statistics Symposium (online), Houston, TX, Dec 2020

15. PhD Seminar (online), Program in Survey Methodology, University of Michigan, MI, Nov. 2020
16. Joint Statistical Meetings (online), Aug. 2020
17. MiCDA Symposium (online), University of Michigan, MI, May. 2020
18. Michigan Institute for Data Science (MIDAS), Working Group for Selection Bias and Missing Data in COVID-19 Population Studies (online), University of Michigan, MI, Apr. 2020
19. Michigan Program in Survey Methodology/Joint Program in Survey Methodology (MPSM/JPSM) Seminar Series (online), University of Michigan, MI, Apr. 2020
20. Conference on Multilevel Regression and Poststratification (online), New York, NY, Apr. 2020
21. Data Anonymization in the 21st century, Data Privacy Day, The the Inter-university Consortium for Political and Social Research (ICPSR) Council meeting, Ann Arbor, MI, Mar. 2020
22. Webinar, Survey Methods and Research Section, American Statistical Association, Oct. 2019
23. The Dialogue between Big Data and Survey Data in Social Science Research, Peking University, Beijing, China, Sept. 2019
24. School of Statistics, Renmin University of China, Beijing, China, Sept. 2019
25. Conference on Current Trends in Survey Statistics-A Satellite Conference to the 62nd ISI World Statistics Congress, National University of Singapore, Singapore, Aug. 2019
26. Junior Fellows Seminar, Joint Program in Survey Methodology, University of Maryland, MD, Jul. 2019
27. The ICSA Applied Statistics Symposium, Raleigh, NC, Jun. 2019
28. Bayesian Causal Inference Workshop, Columbus, OH, Jun. 2019
29. Department of Biostatistics, University of Michigan, MI, Oct. 2018
30. Junior Fellows Seminar, Joint Program in Survey Methodology, University of Maryland, MD, Jul. 2018
31. International Society for Bayesian Analysis (ISBA) 2018 Meetings, Edinburgh, UK, Jun. 2018
32. MPSM/JPSM Seminar Series, University of Michigan, MI, Jan. 2018
33. Department of Urology, University of Michigan, MI, Jan. 2018
34. Center for Youth & Social Issues, University of Michigan, MI, Jan. 2018
35. Joint Statistical Meetings, Baltimore, MD, Aug. 2017
36. 2016 Conference for Women in Statistics and Data Science, NC, Oct. 2016
37. Survey Research Center, Institute of Social Research, University of Michigan, MI, Sept. 2016
38. Department of Statistics, University of Missouri, MO, Mar. 2016
39. ENAR meeting, Austin, TX, Mar. 2016
40. The 8th International Conference of the ERCIM WG on Computational and Methodological Statistics, London, UK, Dec. 2015

41. Division of Biostatistics, Medical College of Wisconsin, WI, Oct. 2015
42. Joint Statistical Meetings, Seattle, WA, Aug. 2015
43. ISBS-DIA Joint Symposium on Biopharmaceutical Statistics, BJ, China, Jun. 2015
44. School of Statistics, Renmin University of China, BJ, China, Jun. 2015
45. Department of Statistics, University of Connecticut, CT, Apr. 2015
46. Department of Statistics, University of Wisconsin-Madison, WI, Mar. 2015
47. Department of Biostatistics and Epidemiology, University of Illinois at Chicago, IL, Oct. 2014
48. Department of Psychology, University of Notre Dame, IN, Sept. 2014
49. Computational Methods for Survey and Census Data in Social Sciences, Montreal, CA, Jun. 2014
50. Department of Statistics, Iowa State University, IA, Mar. 2014
51. Department of Mathematics and Statistics, American University, DC, Jan. 2014
52. Department of Population Health Sciences, University of Wisconsin-Madison, WI, Jan. 2014
53. The American Panel Study Workshop, Washington University at St. Louis, MO, Nov. 2013
54. Department of Mathematical Sciences, New Jersey Institute of Technology, NJ, Oct. 2013
55. Department of Epidemiology, Columbia University, NY, Apr. 2013
56. Department of Statistics, Columbia University, NY, Sept. 2012
57. Statistical Society of Canada 2012 Meeting, Guelph, ON, Canada Jun. 2012
58. American Institute for Research, DC, Apr. 2012
59. The Wharton School of Business, University of Pennsylvania, Philly, PA, Feb. 2012
60. Merck Co, Philly, PA, Feb. 2012
61. Joint Statistical Meetings, Vancouver, BC, Canada, Aug. 2010

Contributed

62. MIDAS Annual Data Science Symposium (online), University of Michigan, Nov. 2020
63. OpenDP Community Meeting (online), May. 2020
64. Value-based Purchasing Accountable Care Organizations (ACO) Working Group Presentation, University of Michigan, Oct. 2019
65. Joint Statistical Meetings, Denver, CO, Jul. 2019
66. Value-based Purchasing ACO Working Group Presentation, University of Michigan, Mar. 2019
67. Quantitative Methodology Program/Survey Methodology Program (QMP/SMP) Methodological Seminar, University of Michigan, Feb. 2019

68. Advances in Causal Inference, Survey Statistics, Disclosure Risk, and Missing Data, in Honor of Rod Little's 65th Birthday, Ann Arbor, MI, Oct. 2015
69. IMS Junior Researcher Conference, Seattle, WA, Aug. 2015
70. ENAR Spring Meeting, Miami, FL, Mar. 2015
71. Frontiers of Hierarchical Modeling in Observational Studies, Complex Surveys and Big Data, College Park, MD, May. 2014
72. OBayes Workshop and Bayes 250, Durham, NC, Dec. 2013
73. SAMSI Workshop on Computational Methods in Social Sciences, RTP, NC, Aug. 2013
74. Joint Statistical Meetings, Montreal, CA, Aug. 2013
75. The 25th Anniversary Celebration for Department of Statistical Science, Duke University, Durham, NC, Oct. 2012
76. Joint Statistical Meetings, San Diego, CA, Aug. 2012
77. Joint Statistical Meetings, Miami, FL, Aug. 2011
78. The 2011 International Workshop on Objective Bayes Methodology, Shanghai, China, Jun. 2011

**Teaching
Experience**

University of Michigan Department of Statistics	Instructor
STATS 451 Bayesian Data Analysis	
Winter 2022	72 students
University of Michigan MPSDS and University of Maryland JPSM	Instructor
SURVMETH 687 Applications of Statistical Modeling	
Fall 2021	17 students
Fall 2020	25 students
Fall 2019	29 students
Fall 2018	21 students, Co-Instr
SURVMETH 625 Applied Sampling	
Winter 2021	19 students, Co-Instr
Winter 2020	21 students, Co-Instr
Winter 2019	24 students, Co-Instr
Winter 2018	15 students, Co-Instr
SURVMETH 614 Analysis Methods for Complex Sample Survey Data	
Summer 2022	7 students, Co-Instr
Summer 2020	34 students, Co-Instr
Summer 2019	11 students
Summer 2018	15 students, Co-Instr

SURVMETH 699: Directed Research

Fall 2020

1 student enrolled

University of Wisconsin-Madison

BMI/PHS 651 Advanced Regression Methods

PHS 805 Epidemiologic Methods (Guest)

STAT 992 Research Topics in Predictive Modeling for Clinical Biostatistics

SIBS 546 Biostat Practicum

BMI/PHS 652 Missing Data: Topics and Tools

BMI/PHS 651 Advanced Regression Methods (Guest)

BMI/PHS 551 Introduction to Biostatistics (Guest)

Instructor

Fall 2015, 2016

Fall 2015, 2016

Fall 2015

Summer 2015

Spring 2015

Fall 2014

Fall 2014

Harvard University

Missing Data Methods

Guest Lecturer

Spring 2014

Columbia University

Sample Surveys

Guest Lecturer

Fall 2013

Duke University

Bayesian Statistics and Modern Computing

Generalized Linear Models

Probability/Statistical Models

Data Analysis and Statistical Inference

Teaching Assistant

Spring 2011

Fall 2010

Fall 2010

Fall 2009

Student advising • Research Assistants:

Heyuan Liu, BS, Department of Statistics, University of Michigan, 2022-

Wenxing Wang, BS, Department of Statistics, University of Michigan, 2022-

Wenxin Guo, BS, Department of Statistics, University of Michigan, 2022-

Yueying Hu, BS, Department of Statistics, University of Michigan, 2022-

Zikai Lin, Department of Biostatistics, University of Michigan, MS, 2019-2021, PhD, 2021-

(*Winner, ENAR 2022 Spring Meeting Distinguished Student Paper Awards; 2022 Rackham Conference Travel Grant*)

Katherine Li, Department of Biostatistics, University of Michigan, MS, 2018-2020, PhD, 2020-

(*Winner, 2022 Rackham Conference Travel Grant; 2021 Rackham Conference Travel Grant; 2019 Michigan Institute for Data Science Symposium Student Poster Award*)

Jiazhi Yang, MS, Michigan Program in Survey and Data Science, University of Michigan, 2021-2022

Adam Kaderabek, MS, Michigan Program in Survey and Data Science, University of Michigan, 2021-2022

(*Winner, 2021 Rackham Conference Travel Grant*)

Li-Hsuan Lin, BS, Department of Statistics, University of Michigan, 2020-2021

Ang Li, MS, Michigan Program in Survey Methodology, University of Michigan, 2018

Yijun Li, MS, Department of Biostatistics, University of Michigan, 2018
Zeping Tao, MS, Michigan Program in Survey Methodology, University of Michigan, 2018
Micha Fischer, PhD, Michigan Program in Survey Methodology, University of Michigan, 2017-2018
Peigen Zhou, PhD, Department of Statistics, University of Wisconsin-Madison, 2015-2017
Sijing Li, PhD, Department of Statistics, University of Wisconsin-Madison, 2015-2017
Duzhe Wang, PhD, Department of Statistics, University of Wisconsin-Madison, 2017
Yifei Zhang, MS, Department of Biostatistics & Medical Informatics, University of Wisconsin-Madison, 2017
Jun Wang, PhD, School of Statistics, Renmin University of China, 2017

- Academic Advising:

Junhui Qian, MS, Michigan Program in Survey Methodology, University of Michigan, 2021-
Anqi Liu, MS, Michigan Program in Survey Methodology, University of Michigan, 2021-
Jiazhi Yang, MS, Michigan Program in Survey Methodology, University of Michigan, 2021-
Hanh Bui, MS, Michigan Program in Survey Methodology, University of Michigan, 2018-
Chendi Zhao, MS, Michigan Program in Survey Methodology, University of Michigan, 2020-2022
Shiyu Zhang, PhD, Michigan Program in Survey Methodology, University of Michigan, 2018-2021
Junhan Tang, MS, Michigan Program in Survey Methodology, University of Michigan, 2019-2021
Ilse Paniagua, MS, Michigan Program in Survey Methodology, University of Michigan, 2018-2020
Ruixuan Li, MS, Michigan Program in Survey Methodology, University of Michigan, 2018-2020
Crystal Chen, MS, Department of Statistics, University of Wisconsin-Madison, 2015-2017
Jesse Dirkman, MS, Department of Statistics, University of Wisconsin-Madison, 2015-2016
Lan Luo, MS, Department of Statistics, University of Wisconsin-Madison, 2015-2016

- PhD Dissertation Committee:

Zikai Lin, PhD, Department of Biostatistics, University of Michigan, Co-chair, 2026 (expected)
Katherine Li, PhD, Department of Biostatistics, University of Michigan, Chair, 2025 (expected)
Rob Trangucci, PhD, Department of Statistics, University of Michigan, 2023 (expected)
Joe Levy, PhD, Department of Population Health Sciences, University of Wisconsin-Madison, 2017
Jared Huling, PhD, Department of Statistics, University of Wisconsin-Madison, 2017
Sien Deng, PhD, Department of Educational Psychology, University of Wisconsin-Madison, 2017
Cuicui Qi, PhD, Department of Statistics, University of Wisconsin-Madison, 2016
Donggyu Kim, PhD, Department of Statistics, University of Wisconsin-Madison, 2016
Tram Ta, PhD, Department of Statistics, University of Wisconsin-Madison, 2016
Chenliang Xu, PhD, Department of Statistics, University of Wisconsin-Madison, 2015

- PhD Preliminary/Comprehensive Exam Committee:

Ali Rafei, PhD, Michigan Program in Survey Methodology, University of Michigan, Chair, 2019

Fernanda Alvarado-Leiton, PhD, Michigan Program in Survey Methodology, University of Michigan, 2019

Yifei Liu, PhD, Department of Statistics, University of Wisconsin-Madison, 2017

Dan Su, PhD, Department of Educational Psychology, University of Wisconsin-Madison, 2017

Joe Levy, PhD, Department of Population Health Sciences, University of Wisconsin-Madison, 2016

Sien Deng, PhD, Department of Educational Psychology, University of Wisconsin-Madison, 2016

Tram Ta, PhD, Department of Statistics, University of Wisconsin-Madison, 2015

Chenliang Xu, PhD, Department of Statistics, University of Wisconsin-Madison, 2014

Professional Activities

Committee Memberships

- Co-chair for HBCD Biostatistics working group, 2022-
- Study panel member on An Integrated System of Household Income, Wealth, and Consumption Data and Statistics to Inform Policy and Research, Committee on National Statistics (CNSTAT), National Academies of Sciences, Engineering, and Medicine, link, 2022-
- ICPSR Disclosure Review Board, 2022-
- JPSM MS online degree program committee, 2021-
- ENAR student paper award committee, 2021-
- Working group leader for the Methodology and Tool Development for Selection Bias and Missing Data in Covid-19 Population Studies, MIDAS, University of Michigan, 2020
- Conference on Multilevel Regression and Poststratification, Columbia University, 2020
- Master student admission, Michigan Program for Survey Methodology/Joint Program in Survey Methodology, University of Michigan/University of Maryland, 2019-
- Seminar organization, Survey Research Center, University of Michigan, 2018-2020
- PhD qualification exam committee chair, Michigan Program for Survey Methodology/Joint Program in Survey Methodology, University of Michigan/University of Maryland,, 2018-
- PhD student admission, Michigan Program for Survey Methodology/Joint Program in Survey Methodology, University of Michigan/University of Maryland, 2017-2019
- Vice president for the American Statistical Association (ASA) Wisconsin Chapter, 2016
- Wisconsin ASA Chapter Madison Networking and Planning Luncheon, 2016
- The 7th International Forum on Statistics of Renmin University of China, 2016
- Department seminar, Biostatistics & Medical Informatics, University of Wisconsin, 2015-2017

Other National and Local Service

- Grant reviewer for NSF-Research on the Science & Technology Enterprise: Indicators, Statistics, and Methods, 2022
- Consultant for the USDA-NASS IDEAL project, Summit Consulting, Washington, DC, 2021-
- Grant reviewer for Propelling Original Data Science Grants, MIDAS, University of Michigan, 2021

- Roundtable discussion organizer for “Bridging data science and survey methodology in research and educational programs”, JSM, 2020
- Faculty judge for Michigan Student Symposium for Interdisciplinary Statistical Sciences, 2020
- Reviewer for Student Paper Competition, the International Conference on Health Policy Statistics (ICHPS), 2019
- Grant reviewer for Office of Research Faculty Grants and Awards, University of Michigan, 2017
- Grant reviewer for NSF-MMS, 2016, 2020
- Invited session organizer for:
 - “COVID-19 and survey sampling: Challenges and opportunities”, JSM, 2021
 - “Evolving survey inference in the big data era: Challenges and opportunities”, JSM, 2019
 - “Recent development of Bayesian methods in survey sampling”, JSM, 2017
 - “Recent development in statistical analysis of missing data in observational studies”, IMS-China, 2017
 - “Missing data issues in meta-analysis with individual participant data”, ENAR meeting, 2016
- Reviewer for the International Conference on Machine Learning, 2016
- Reviewer for the International Conference on Artificial Intelligence and Statistics, 2016
- Reviewer for Student Paper Competition, JSM, 2015
- Session chair for ENAR annual meetings, 2015, 2016, 2017
- Session chair for JSM, 2011, 2013, 2015, 2019, 2020
- Session chair for ICSA Applied Statistics Symposium, 2021

Editorial Service

- Associate Editor for:
 - Journal of Official Statistics*, 2019-
- Referee for Journals:
 - Journal of the American Statistical Association*, *Biometrika*, *Annals of Applied Statistics*, *Biometrics*, *Bayesian Analysis*, *Journal of the Royal Statistical Society-Series B*, *Journal of Survey Statistics and Methodology*, *International Statistical Review*, *Journal of Computational and Graphical Statistics*, *Survey Methodology*, *American Journal of Epidemiology*, *American Journal of Public Health*, *Austrian Journal of Statistics*, *Biometrical Journal*, *Behavior Research Methods*, *British Journal of Mathematics & Computer Science*, *Epidemiology*, *Epidemiologic Methods*, *European Journal of Operational Research*, *Harvard Data Science Review*, *Health Services and Outcome Research Methodology* *International Journal of Pattern Recognition and Artificial Intelligence*, *IERI Monograph Series*, *JAMA Oncology*, *Journal of Applied Statistics*, *Journal of Educational and Behavioral Statistics*, *Journal of Machine Learning Research*, *Journal of Official Statistics*, *Journal of Probability and Statistics*, *Journal of Statistical Software*, *Journal of Computational and Applied Mathematics*, *Communications in Statistics–Theory and Methods*, *Methodology*, *Population Health Metrics*, *Population Research and Policy Review*, *Psychological*

Methods, Public Health Reports, STAT, Statistical Analysis and Data Mining, Statistical methods in Medical Research, Statistica Sinica, The American Statistician, The Lancet Infectious Diseases, Statistics in Medicine, Scandinavian Journal of Statistics Sankhya A, Statistics and Probability Letters, Statistics and Computing, Electronic Journal of Statistics, Sociological Methods and Research, Spatial Statistics

Certificates

- Genetics for Social Scientists Workshop, 2020
- University of Michigan American Accent Program, 2019
- Blend@UW Course Design Program, 2015
- Wisconsin Idea Seminar, 2015

Membership

- International Biometric Society-ENAR (2014-)
- International Society for Bayesian Analysis (2011-)
- Institute of Mathematical Statistics (2011-)
- International Chinese Statistical Association (2011-)
- American Statistical Association (2010-)